person in connection with the activities described in §217.151 of this chapter may:

- (a) Take any marine mammal not specified in §217.153(b) of this chapter;
- (b) Take any marine mammal specified in §217.153(b) of this chapter other than by incidental, unintentional Level B Harassment;
- (c) Take a marine mammal specified in §217.153(b) of this chapter if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or
- (d) Violate, or fail to comply with, the terms, conditions, and requirements of this subpart or a LOA issued under §§ 216.106 and 217.157 of this chapter.

§217.155 Mitigation.

- (a) When conducting the activities identified in §217.151(a) of this chapter, the mitigation measures contained in any LOA issued under §§216.106 and 217.157 of this chapter must be implemented. These mitigation measures include but are not limited to:
 - (1) General Conditions:
- (i) Briefings shall be conducted between the Port Dolphin project construction supervisors and the crew, protected species observer(s) (PSO), and acoustic monitoring team prior to the start of all construction activity, and when new personnel join the work, to explain responsibilities, communication procedures, protected species monitoring protocol, and operational procedures.
- (ii) Port Dolphin shall comply with all applicable equipment sound standards and ensure that all construction equipment has sound control devices no less effective than those provided on the original equipment. Vessel crew and contractors shall minimize the production of underwater sound to the extent possible. Equipment and/or procedures used may include the use of enclosures and mufflers on equipment, minimizing the use of thrusters, and turning off engines and equipment when not in use.
- (iii) All vessels associated with Port Dolphin construction and operations shall comply with NMFS Vessel Strike Avoidance Measures and Reporting for Mariners and applicable regulations.

All vessels associated with Port Dolphin construction and operations shall remain 500 yd (457 m) away from North Atlantic right whales (*Eubalaena glacialis*) and 100 yd (91 m) away from all other marine mammals, except in cases where small marine mammals (i.e., delphinids) voluntarily approach within 100 yd or unless constrained by human safety concerns or navigational constraints.

- (2) Shutdown and Monitoring:
- (i) Shutdown zone: For all stationary activities, shutdown zones shall be established. These zones shall include all areas where underwater sound pressure levels (SPLs) are anticipated to equal or exceed 180 dB re: 1 µPa rms, as determined by modeled scenarios approved by NMFS for each specific activity. The actual size of these zones shall be empirically determined and reported by Port Dolphin. For all non-stationary activities (e.g., pipeline burial, shuttle regasification vessel (SRV) maneuvering), Port Dolphin shall adhere to Vessel Strike Avoidance Measures described in §217.155(a)(1)(iii) of this chapter, but shall not otherwise be required to establish shutdown zones.
- (ii) Disturbance zone: For all construction activities, disturbance zones shall be established. For impact pile driving, these zones shall include all areas where underwater SPLs are anticipated to equal or exceed 160 dB re: 1 μPa rms. For all other activities these zones shall include all areas where underwater SPLs are anticipated to equal or exceed 120 dB re: 1 µPa rms. These zones shall be established on the basis of modeled scenarios approved by NMFS for each specific activity. The actual size of disturbance zones shall be empirically determined and reported by Port Dolphin, and on-site PSOs shall be aware of the size of these zones. However, because of the large size of these zones, monitoring of the zone is required only to maximum lineof-sight distance from established monitoring locations.
- (iii) Visual monitoring shall occur for all construction activities. The following measures shall apply:
- (A) Zones shall be monitored from the appropriate vessel or work platform, or other suitable vantage point. Port Dolphin shall at all times employ,

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at minimum, two PSOs in association with each concurrent specified construction activity.

- (B) Shutdown zones shall be monitored for the presence of marine mammals before, during, and after construction activity. For all activities, the shutdown zone shall be monitored for 30 minutes prior to initiating the start of activity and for 30 minutes following the completion of activity. If marine mammals are present within the shutdown zone prior to initiating activity, the start shall be delayed until the animals leave the shutdown zone of their own volition or until 15 minutes has elapsed without observing the animal. If a marine mammal is observed within or approaching the shutdown zone, activity shall be halted as soon as it is safe to do so, until the animal is observed exiting the shutdown zone or 15 minutes has elapsed. If a marine mammal is observed within the disturbance zone, a take shall be recorded and behaviors documented.
- (C) PSOs shall be on watch at all times during daylight hours when inwater operations are being conducted, unless conditions (e.g., fog, rain, darkness) make observations impossible. The lead PSO on duty shall make this determination. If conditions deteriorate during daylight hours such that the sea surface observations are halted, visual observations must resume as soon as conditions permit. While activities will be permitted to continue during low-visibility conditions, they must have been initiated following proper clearance of the shutdown zone under acceptable observation conditions and must be restarted, if halted for any reason, using the appropriate shutdown zone clearance procedures as described in §217.155(a)(2)(iii)(B) of this chapter.
 - (3) Pile driving:
- (i) A minimum shutdown zone of 250 m radius shall be established around all impact pile driving activity.
- (ii) Contractors shall reduce the power of impact hammers to minimum energy levels required to drive a pile.
- (iii) Port Dolphin shall use a sound attenuation measure for impact driving of pilings. Prior to beginning construction, Port Dolphin must provide information to NMFS about the device

to be used, including technical specifications. NMFS must approve use of the device before construction may begin. If a bubble curtain or similar measure is used, it shall distribute small air bubbles around 100 percent of the piling perimeter for the full depth of the water column. Any other attenuation measure (e.g., temporary sound attenuation pile) must provide 100 percent coverage in the water column for the full depth of the pile. Prior to any impact pile driving, a performance test of the sound attenuation device must be conducted in accordance with a NMFS-approved acoustic monitoring plan. If a bubble curtain or similar measure is utilized, the performance test shall confirm the calculated pressures and flow rates at each manifold ring.

(iv) Ramp-up:

- (A) A ramp-up technique shall be used at the beginning of each day's inwater pile driving activities and if pile driving resumes after it has ceased for more than 1 hour.
- (B) If a vibratory driver is used, contractors shall be required to initiate sound from vibratory hammers for 15 seconds at reduced energy followed by a 1-minute waiting period. The procedure shall be repeated two additional times before full energy may be achieved.
- (C) If a non-diesel impact hammer is used, contractors shall be required to provide an initial set of strikes from the impact hammer at reduced energy, followed by a 1-minute waiting period, then two subsequent sets.
- (D) If a diesel impact hammer is used, contractors shall be required to turn on the sound attenuation device for 15 seconds prior to initiating pile driving.
- (v) No impact pile driving shall occur when visibility in the shutdown zone is significantly limited, such as during heavy rain or fog.
 - (4) Additional mitigation measures:
- (i) Use of lights during construction activities shall be limited to areas where work is actually occurring, and all other lights must be extinguished. Lights must be shielded such that they illuminate the deck and do not intentionally illuminate surrounding waters, to the extent possible.

- (ii) Additional mitigation measures as contained in a LOA issued under §§ 216.106 and 217.157 of this chapter.
 - (b) [Reserved]

§217.156 Requirements for monitoring and reporting.

- (a) Visual monitoring program:
- (1) Port Dolphin shall employ, at minimum, two qualified PSOs during specified construction-related activities at each site where such activities are occurring. All PSOs must be selected in conformance with NMFS' minimum qualifications, as described in the preamble to this rule, and must receive training sponsored by Port Dolphin, with topics to include, at minimum, implementation of the monitoring protocol, identification of marine mammals, and reporting requirements. The PSOs shall be responsible for visually locating marine mammals in the shutdown and disturbance zones and, to the extent possible, identifying the species. PSOs shall record, at minimum, the following information:
- (i) A count of all marine mammals observed by species, sex, and age class, when possible.
- (ii) Their location within the shutdown or disturbance zone, and their reaction (if any) to construction activities, including direction of movement.
- (iii) Activity that is occurring at the time of observation, including time that activity begins and ends, any acoustic or visual disturbance, and time of the observation.
- (iv) Environmental conditions, including wind speed, wind direction, visibility, and temperature.
- (2) Port Dolphin shall sponsor a training course to designated crew members assigned to vessels associated with construction activities or support of operations who will have responsibilities for watching for marine mammals. This course shall cover topics including, but not limited to, descriptions of the marine mammals found in the area, mitigation and monitoring requirements contained in a LOA, sighting log requirements, provisions of NMFS Vessel Strike Avoidance Measures and Reporting for Mariners, and procedures for reporting injured or dead marine mammals.

- (3) Monitoring shall be conducted using appropriate binoculars, such as 8x50 marine binoculars. When possible, digital video or still cameras shall also be used to document the behavior and response of marine mammals to construction activities or other disturbances.
- (4) Each PSO shall have two-way communication capability for contact with other PSOs or work crews. PSOs shall implement shut-down or delay procedures when applicable by calling for the shut-down to the equipment/vessel operator.
- (5) A GPS unit and/or appropriate range finding device shall be used for determining the observation location and distance to marine mammals, vessels, and construction equipment.
 - (b) Acoustic monitoring program:
- (1) Acoustic monitoring must be conducted in accordance with the NMFS-approved acoustic monitoring plan.
- (2) Port Dolphin shall provide NMFS with empirically measured source level data for designated sources of sound associated with Port construction and operation activities and shall verify distances to relevant sound thresholds. Measurements shall be carefully coordinated with sound-producing activities
 - (3) [Reserved]
- (c) Reporting—Port Dolphin must implement the following reporting requirements:
- (1) A report of data collected during monitoring shall be submitted to NMFS following conclusion of construction activities. Subsequent reports concerning Port operations shall be submitted annually. The reports shall include:
- (i) All data required to be collected during monitoring, as described under §217.156(a) of this chapter, including observation dates, times, and conditions;
- (ii) Correlations of observed behavior with activity type and received levels of sound, to the extent possible; and
- (iii) Estimations of total incidental take of marine mammals, extrapolated from observed incidental take.
- (2) Port Dolphin shall also submit a report(s) concerning the results of all